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ABSTRACT

One of 33 self-paced industry services leadership development (ISLD) modules, this module contains three sequential learning activities on developing performance objectives. (The industry services program for which these materials were developed would involve provision of job training by public agencies for new or expanding private industries.) The first learning activity is designed to provide the learner (industry services leader) with the needed background information on development of performance objectives for the training program based on the task analysis of the job. The second activity gives opportunity to apply the information in a practice situation, and the final checkout activity allows the learner to develop performance objectives in a real work situation, such as when employed or when serving as an intern learner. Feedback devices (learner self-test and performance checklist) are included for use by the learner and instructor/supervisor to assess progress. (This is the second of seven modules in the set which deal with preparing training materials.) (JT)

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MODULE NUMBER VIII-B

DEVELOPING PERFORMANCE OBJECTIVES

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SELF-PACED
INSTRUCTIONAL MODULE

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INSTRUCTIONAL PROCEDURE

This module contains two sequential learning activities and a final check-out activity. A brief overview precedes each learning activity and the final check-out activity. Each learning activity and the final check-out activity provide learning experiences to help you accomplish the objectives. Feedback devices (learner self-test, and performance checklist) are provided to help you determine when each objective has been accomplished.

The first learning activity is designed to provide you with the needed **background information.** The second learning activity is designed to give you an opportunity to apply that information in a **practice** situation. The **Check-Out Activity** is the final learning activity. It is designed to allow you to develop performance objectives in a real work situation, such as when you are employed or when you are serving as an intern learner. The **Performance Checklist** (Appendix A) is used by the learner and the instructor/supervisor to assess progress. The checklist is applicable for both practice performance and performance in the real work situation.

After reading the **Objectives** and the **Introduction** on page 3, you should be able to determine how much of this module you will need to complete before the **Check-Out Activity.**

* If you already have the necessary **background information** required for developing performance objectives, you may not need to complete **Learning Activity I,** p. 4 .
* If you already have had **practice** in developing performance objectives, you may not need to complete **Learning Activity II,** p. 13 .
* Instead, with the approval of your instructor or supervisor, you may choose to proceed directly to the **Check-Out Activity,** p. 14 , and develop performance objectives when you have access to a **real work situation.**

Your instructor or supervisor may be contacted if you have any difficulty with directions, or in assessing your progress at any time.

SUPPLEMENTARY TEACHING/LEARNING AIDS

An effort has been made to make this module as self-contained as possible. The information contained in the module should be sufficient to develop "entry-level" knowledge and skills. However, more has been written on this topic. The advanced learner may wish to attain higher levels of knowledge and skills.

A list of resources which supplement those contained within the module follows. Check with your instructor or supervisor (1) to determine the availability and the location of these resources, and (2) to get assistance in setting up additional learning activities.

There are no prerequisites to completing this module. However, the module may be completed in conjunction with module number VIII-A, **Conducting a Task Analysis.**

Learning Activity I

* Butler, F. Coit. **Instructional Systems Development for Vocational and Technical Training.** Englewood Cliffs, New Jersey 07632: Educational Technology publications, 140 Sylvan Avenue, 1972.

* Mager, Robert F. **Measuring Instructional Intent.** Belmont, California 94002: Fearon Publishers, 6 Davis Drive, 1973.

* Mager, Robert F. **Preparing Instructional Objectives.** Belmont, California 94002: Fearon Publishers, 6 Davis Drive, 1975.

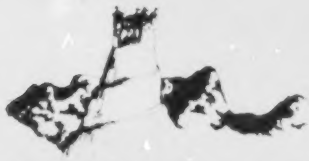
* Mager Associates, Inc. "You Can Hear the Learning Happen," Los Altos Hills, California 94002: Mager Associates, Inc., 13245 Rhoda Drive, 1974.

Learning Activity II

* Example curriculum materials which utilize performance objectives

Check-Out Activity

* Example curriculum materials which utilize performance objectives
* Industry representative



OBJECTIVES

I. After completing the required reading, take the learner self-test to demonstrate you have attained the knowledge of developing performance objectives. You should complete all items correctly. (**Learning Activity I**)

II. After analyzing the performance instructions, complete all the designated experiences in developing performance objectives in a practice situation. Your work must conform to the checklist provided. (**Learning Activity II**)

III. In an actual work situation, develop performance objectives for an industry training program. Satisfactory performance will be realized when all items on the performance checklist (Appendix A) are rated "yes." (**Check-Out Activity**)

DEVELOPING PERFORMANCE OBJECTIVES

INTRODUCTION

The term performance objective encompasses any learning objective, the attainment of which can be measured by observing some behavior. The term is synonymous with "behavioral," "criterion," "interim," and "terminal" objectives. Becoming an effective writer of performance objectives is a matter of practice and perseverance.

Performance objectives can be used to determine whether a learner has accomplished some instructional intent. They can be used to reveal what is expected of a learner so that learning efforts may be planned, organized, and managed. When clearly defined objectives are used, the instructor will have a basis for developing or selecting instructional materials as to content and method.

LEARNING ACTIVITY I: INFORMATION

You should study the information presented in the following section. You may wish to read more on the subject from the references listed in the section on **Supplementary Teaching/Learning Aids.** After reading these materials, you will demonstrate knowledge of developing performance objectives by completing the **Learner Self-Test,** p. 7 . You will be evaluating your knowledge by comparing your self-test answers to the **Answers to Self-Test,** p. 11.

I. TERMS UNIQUE TO MODULE

The following terms and definitions will enable the industry services leader to clarify his/her role in developing performance objectives and standards.

A. **Instructor.** Used interchangeably with teacher. One who motivates the learner, imparts knowledge, manages learning, and evaluates final results.

B. **Learner.** Used interchangeably with student. One who is instructed, resulting in a change in behavior.

C. **Test.** A device or method requiring the learner to demonstrate knowledge or skill.

D. **Test Items.** Activities provided the learner to measure performance or change in behavior.

E. **Measurement.** Used to determine specific characteristics of a person or object in measurable terms such as weight, height, length, depth, and speed.

F. **Evaluation.** Assessment of learner performance. Two kinds of evaluation are as follows:

1. Norm-referenced—Comparing the performance of one learner to the performance of another learner, and making a judgment (measurement) on the basis of the comparison. There is a trend to avoid this type evaluation when criterion-referenced evaluation can be accomplished.
2. Criterion-referenced– Measuring performance on the basis of criteria established for the performance. A process of comparing a learner's competency with a

performance objective and standard(s), rather than against the performance of other learners.

G. **Performance.** Any act the instructor wishes the learner to perform. Some internal or external action is essential to have a complete performance objective. The performance may describe the objective, or it may describe a method through which one will find out if, and when, the objective has been completed. The performance should be the most simple and most direct that can be utilized. Finally, the performance must be within the learner's potential ability. Two kinds of performances are as follows:

1. Overt performance—Performance that is directly observable, either visible or audible. For example: type a letter.
2. Covert performance—Performance that is not observable, either external or internal. For example: recall.

H. **Objective.** An objective tells the learner what he/she must do to reach a goal. It also indicates what the expected final performance should be. Three kinds of objectives are as follows:

1. Psychomotor—That which results in physical manipulation with hands, arms, legs, and other body movements. Psychomotor objectives are based on the production tasks which are performed in industry. Psychomotor objectives assume that certain knowledge, skills, and attitudes are required to perform industry tasks. However, the degree to which these requirements are met by the learner are evident in the psychomotor performance. It is likely that the majority of the performance objectives prepared for an industry services project will be the psychomotor type.
2. Cognitive—That mental activity which results in verbal or written expression. Answering questions is perhaps the most common form of cognitive expression. Cognitive objectives should be based on the knowledge needed to successfully perform industry tasks.
3. Affective—That which manifests itself in a change of the learner's attitude. Affective objectives should be based on those attitudes and responsibilities necessary for successful task performance.

I. **Objective Elements.** Carefully prepared performance objectives should contain the following elements:

1. Performance—What the learner is to be able to do, such as "install a saw blade."
2. Condition—Important conditions under which the performance is expected to occur, such as "with a wrench and screwdriver, while working from the underside."
3. Standard—Used interchangeably with criterion. The quality or level of performance considered to be acceptable, such as "must not vibrate or turn on shaft after placed back in operation."

II. NEED FOR PERFORMANCE OBJECTIVES

The need for training in new jobs has meant that instruction must take place in the shortest period of time possible, while producing the greatest amount of change in an individual's behavior. To carry out this goal, it is necessary to use clearly stated and explicitly detailed performance objectives as a basis for efficient, effective training. If the instructor is to know when a specific objective has been achieved, he/she must use words that communicate clearly the desired task performance.

III. END RESULTS

The strength of the learner's desire, motivation, and quality of performance is directly related to knowing precisely what tasks must be performed, and how well the tasks must be performed. If the objective is worth teaching, it is worth knowing that, as supervisors or instructors, we have succeeded!

* Continue this learning activity by completing the **Learner Self-Test** which follows.

LEARNER SELF-TEST

This is a checkpoint knowledge test needed before proceeding to the development of performance objectives in a practice situation. Follow the instructions provided with each item. Check your answers with the **Answers to Self-Test** which follow. If you fail to complete all items correctly, you may wish to go back and review parts of the module information.

1. List and define the three elements of a useful performance objective.

   a.

   b.

   c.

2. In the blank provided, identify the type of performance objective as being either cognitive, psychomotor, or affective.

   a. _____ Given a start-up training project, list a minimum of four agencies normally involved in a training project. The four agencies listed should match those contained in an instructor's checklist.

   b. _____ Given appropriate supportive staff and access to community agencies, develop an alphabetical file on the availability of community services. File categories should include transportation, finance, utilities, education, health, and recreation.

   c. _____ Given an opportunity to assist in the operation of a cotton gin, greet customers as they arrive at the gin. Satisfactory performance is evidenced when all items on an instructor checklist are rated "yes."

3. **Instructions:** Read each statement below. Place a check mark in the appropriate column to the right if the statement includes a performance, the condition(s) under which the performance is to be performed, and the criterion by which successful performance of the objective can be assessed.

NOTE: If an objective does not have a performance, there is no need to look for the condition or criterion.

	Performance	Standard	Condition
a. Without reference materials, list three types of performance objectives supported by available research. The exact terminology must be used.	____	____	____

	Performance	Standard	Condition
b. Demonstrate a thorough and complete knowledge of all necessary principles pertaining to an industry services program.	____	____	____
c. Write a performance objective for an industry services program.	____	____	____

ANSWERS TO SELF-TEST

1. a. Performance—What the learner is to be able to do.
   b. Condition—Important conditions under which the performance is expected to occur.
   c. Standard—The quality or level of performance that will be considered acceptable.
2. a. **Cognitive**
   b. **Psychomotor**
   c. **Affective**

	Performance	Standard	Condition
3. a.	X	X	X
b.			
c.	X		

*Proceed to the next learning activity for practice in writing performance objectives.

LEARNING ACTIVITY II: PRACTICE PERFORMANCE

You will be required to practice developing performance objectives. You may wish to review training manuals and other curriculum materials which use performance objectives. You will be evaluating your performance in developing performance objectives using the **Performance Checklist** from Appendix A.

I. Select 3 tasks from a job you were engaged in during the past year. Each task should be a clearly defined unit of work which has a beginning and ending point, and which resulted in a product.

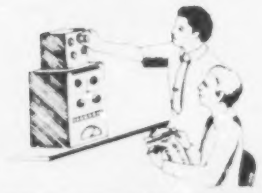
II. Write a performance objective for each of the tasks. Include a clearly stated condition, performance, and standard. Identify the three components of your objectives as follows: condition with parenthesis, ( ); performance with brackets, [ ]; and standard with asterisks, ** . Two examples are shown below.

   A. (Given a hydraulic press equipped with a holding fixture,) [press a commutator on an armature shaft.] The commutator must be advanced on the shaft according to the blueprint specifications.**

   B. (Given an armature turning lathe equipped with a diamond point cutting tool, bench grinder equipped with a diamond point cutting tool, bench grinder equipped with a cleaning brush, an armature assembly, and a 1-inch micrometer,) [finish turn a commutator] to within $\pm$ 1.006.** No streak or rough areas caused by the cutting tool or handling should appear on the finished armature.**

III. Use the **Performance Checklist** from Appendix A to check your competency in developing each performance objective. Satisfactory performance is realized when all items on the checklist are rated "yes."

*Completion of this learning activity should have qualified you to develop performance objectives for a training program in a real work situation. Proceed to the **Check-Out Activity**.



CHECK-OUT ACTIVITY: PERFORMANCE IN REAL WORK SITUATION

The activity which follows is intended to be conducted in an actual work situation. It may be performed without completing the two learning activities, if you think you have the knowledge and skills to do so.

You will be given an assignment to develop a training program for an industry in your community. One of your activities will be to develop performance objectives as a basis for planning the instructional activities. The performance objectives will be based on clearly defined tasks performed in the production processes. Your performance in developing objectives will be judged by your instructor or supervisor using a checklist. All items on the **Performance Checklist** (Appendix A) must be rated "yes."

After completing the **Check-Out Activity**, you may select another module for study. Your instructor or supervisor may be contacted if you have any difficulty in selecting a module.

APPENDIX A

PERFORMANCE CHECKLIST

Developing performance objectives.

INSTRUCTIONS: If the performance is satisfactory, write YES in the space provided. If the performance is unsatisfactory, write NO in the space. Each item must be rated "yes" for satisfactory task performance.

1. Objective condition indicated the tools, equipment, and supplies required for performing the task. ☐
2. Objective performance was focused on a clear task statement. ☐
3. Objective standard specified how well the task must be performed. ☐
4. Objective components, when combined, communicated clearly. ☐
5. Objective was free of written errors. ☐

LIST OF INDUSTRY SERVICES LEADERSHIP DEVELOPMENT MODULES

I. **Orientation to Industry Services**

- A. Introduction to Industry Services
- B. Industry Services Leadership Development Program: Guide for Using the Self-Paced Instructional Modules

II. **Establishing Contacts and Relationships**

- A. Speaking to Industrial and Community Groups
- B. Writing Articles for News Media
- C. Identifying Functions of Agencies Involved in Industry Services
- D. Developing a Brochure for Industry Services

III. **Obtaining Agreements**

- A. Developing Training Agreements
- B. Developing a Lead-time Schedule
- C. Interpreting Legislation Related to Industry Services

IV. **Identifying Training Needs**

- A. Collecting Framework Production and Training Information
- B. Selecting Types of Training Programs
- C. Preparing a Budget for an Industry Services Project

V. **Acquiring Resources**

- A. Selecting Instructors for Industry Services
- B. Securing a Training Site
- C. Securing Training Equipment, Tools, and Supplies

VI. **Training Instructors for Industry Services**

Training Instructors for Industry Services

VII. **Preparing for Training**

- A. Adapting the Training Site to Training Needs
- B. Evaluating Safety Conditions at Training Sites
- C. Announcing the Opening of a Training Program

VIII. **Preparing Training Materials**

- A. Conducting a Task Analysis
- B. Developing Performance Objectives
- C. Determining Types of Instructional Methods and Media
- D. Developing Performance Tests
- E. Developing Training Manuals
- F. Preparing Videotapes for an Industry Services Program
- G. Setting Up Learning Centers for Industry Services Programs

IX. **Selecting Candidates**

Developing a Plan for Testing and Counseling Applicants for a Training Program

X. **Monitoring Training Programs**

- A. Assisting in Providing Pre-Employment and In-Plant Training
- B. Developing a Procedure for Keeping Participating Agencies Informed About Training Program Activities
- C. Monitoring Training Programs for Progress and Expenditures

XI. **Closing Training Programs**

Closing a Training Program

XII. **Placing Program Participants**

Developing a Plan for Placing Graduates of a Pre-Employment Training Program

XIII. **Evaluating Industry Services Programs**

Evaluating Industry Services Programs

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